the average in quantity. Pears yielded abundantly.—Edward A. Beals. Pennsylvania. - The prevailing conditions were generally favorable for farm work and the advance of growing crops. At the close of the month tobacco was in an unusually promising condition and a large portion of Hayana had been housed; thrashing was well under way and yields satisfactory; corn was large in stalk and well eared; buckwheat was filling well; garden truck and pastures were good and plentiful; potatoes were suffering from rot and blight; apples were wormy and dropping, and peaches were fair in many localities.—T. F. Toursend.

Porto Rico.—The rainfall for the month was much in excess of the

normal. The drought, which prevailed at many places during the first part of the month, was broken by the heavy showers of the 9th. Cane did finely, except in the unirrigated fields of the southern section, where more rain was needed. Coffee prospects were excellent. Much land being prepared for tobacco, with indications that the tobacco acreage will be greatly increased over that of last season. The cotton yield was light, the plant having been badly damaged by worms in many places. Small crops and fruits were generally abundant. - A. L. Brockway.

South Carolina. - Temperatures had an unusually wide range, but were generally favorable. Precipitation was generally about normal. Cotton deteriorated on sandy lands, due to rust that caused excessive shedding, while on heavy soils and on the sea islands there was slight improvement. Opening began with the month and picking became active after the 20th. Early corn reached maturity and later plantings improved steadily. Late tobacco was better than the early crop. Rice harvest began. Minor crops did well. - J. W. Bauer.

South Dakota. - Favorable temperature. Wind and rain lodged late

wheat and oats in some northeastern counties, somewhat retarded harvest, and injured some grain in shock. Scattered fields of wheat were slightly injured some grain in snock. Statested fields of wheat were slightly injured by black rust. Cutting of small grains was completed; thrashing from shock indicated mostly good yields, but there was considerable smutty wheat and discolored barley. Corn, grass, flax, potatoes, and millet did well. Corn was in promising condition and well eared. Flax and millet harvest was begun. Haying advanced favorably, with generous yields.—S. W. Glenn.

Tennessee.—Except in a few localities, the rainfall was ample, and temperature conditions were generally favorable. At the end of the month early corn was maturing well and the yield was good. Late corn was much improved and promised a fair crop. A fine crop of tobacco was being cut. Cotton was opening; generally rank in stalk growth, but not well bolled. Peanuts, turnips, and potatoes were good. Apples were

poor. Hay crops were good.—H. C. Bate. Texas. - Temperatures were generally above normal. Rainfall was in the form of showers, and was generally deficient, especially during the latter part of the month. Soil too dry and hard for plowing. teriorated decidedly, especially during the latter part of the month. Cotton improved early in the month, but later deteriorated decidedly; growth of plant and putting on squares were checked and bolls opened prematurely; in the northeast there was some improvement throughout the month; bolls opened rapidly in central and southern counties

and picking was pushed; boll weevils diminished, but were still doing considerable damage. Rice and sugar cane generally did well, but suffered somewhat from dry weather. -M. E. Blystone.

Utah.—Thunderstorms were numerous, but the accompanying precipitation was insufficient for vegetation in some localities. Grain harvesting was nearing completion and thrashing was general; average yields were mostly reported. Beets were maturing and nearly ready to gather; the crop was generally in good condition, though suffering in localities from insects and blight. Lucerne was mostly gathered. Corn was in good condition. Ranges were dry, but stock was in good condition. The supply of water was low in some sections, and in consequence the work of irrigation was greatly impeded.—R. J. Hyatt.

Virginia.—The weather of the month was, on the whole, favorable for general crop progress. The temperatures prevailing, though lower than normal, were not enough so to be unseasonable. Precipitation was frequent during the first half of the month. Corn and tobacco did very well, cutting of the former and cutting, housing, and curing of the latter being well advanced by the 20th. Pastures were in good condition throughout the month. A great deal of fall plowing and other prepara-tion for seeding was completed. There was no important improvement in the outlook for the apple crop.—Edward A. Evans.

Washington. - The month was dry in eastern counties and favorable for harvesting oats, barley, and an immense crop of wheat, although heavy winds in the central and southeastern counties considerably damaged the latter. The oat crop in western counties was somewhat injured The month was too dry for pastures and potatoes. -G. by heavy rains.

West Virginia.—The weather was generally favorable for farm work, and frequent showers were beneficial for crop growth. Harvesting was about completed during the first two weeks. Thrashing and fall plowing were in progress, with good yield of wheat and large yield of oats. Pastures and stock were in fine condition. Corn made good growth, and was very promising. Millet, buckwheat, cowpeas, sweet potatoes, and tobacco were doing well. Irish potatoes were deteriorating somewhat. The prospects for apples and other fruits were poor.—E. C. Vose.

Wisconsin.—Weather during the month marked by frequent rains, heavy at points, retarding thrashing and harvesting and causing some damage to grain. Much damage was done during the early part of the month by high winds, which lodged standing grain badly. Corn improved steadily, and, except on lowlands, was in excellent condition at the end of the month. Small grains furnished satisfactory yields, as a Potatoes and apples very poor. Tobacco and buckwheat excel-Pastures very satisfactory.—J. W. Schaeffer.

Wyoming.—The weather of the month was favorable for the completion of haying, except that in some sections the work was delayed by too frequent showers. A good crop of hay was secured, but more hay than usual was damaged by rains. A good grain crop matured and was harvested during the month. The absence of frost made the month favorable for gardens, which gave good yields. The water supply of the State was ample for needs of nearly every section. - W. S. Palmer.

## SPECIAL ARTICLES.

## RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

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The following titles have been selected from among the books recently received, as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies. Most of them can be loaned for a limited time to officials and employees who make application for them.

Abbot, Henry L[arcom].

Problems of the Panama Canal. x, 248 pp. 12°. New York. 1905.

Clough, H[omer] W.

Synchronous variations in solar and terrestrial phenomena. printed from The Astrophysical Journal, Vol. XXII, No. 1, July, 1905.) Pp. 42-74.

Eiffel, G.

Dix années d'observations météorologiques a Sèvres (Seine-et-Oise) Avec la collaboration de M. G. Barbé. 94 pp. fo. ( 1892–1901). Paris. 1904.

Hesse. Grossherzogliches Hydrographisches Bureau.

Deutsches Meteorologisches Jahrbuch für 1904. Grossherzogtum Hessen. IV. Jahrgang. Herausgegeben vom Grossherzoglichen Hydrographischen Bureau. [12], 55 pp. Imperial Russian Geographical Society. fo. Darmstadt. 1905.

[Annual] report. 1904. [Russian text.] xii, 188 pp. 8° St. Petersburg.

Kayser, H.

Handbuch der Spectroscopie. Dritter Band. viii, 604 pp. 8°. Leipzig. 1905.

Nansen, Fridtjof (Ed.)

The Norwegian North Polar Expedition 1893-1896. Vol. 6. Meteorology by H. Mohn. xiv, 659 pp. 4°. London.

New South Wales. Government Astronomer.

Results of meteorological observations in New South Wales, 1900, 1901, 1902. 216 pp. 8°. Sydney. 1904.

Prussia. Königlich Preussisches Meteorologisches Institut. Anleitung zur Anstellung und Berechnung meteorologischer Beobachtungen. 2 Teile. vi, 66; 49 pp. 4°. Berlin. 1904–1905. vi, 66; 49 pp. 4°. Berlin. 1904-1905.

Tarr, Ralph S[tockman]. New physical geography. Thomson, J[oseph J[obn]. xvi, 457 pp. 12°. New York. 1905.

Electricity and matter. (Yale University. Mrs. Hepsa Ely Silliman memorial lectures.) 162 pp. 8°. New York. 1905.

U. S. Coast and Geodetic Survey.

A bibliography of geodesy. By James Howard Gore. Appendix No. 8, Report for 1902. 2d edition. Pp. 430-789. 4°. Washington. 1903.

## RECENT PAPERS BEARING ON METEOROLOGY.

C. F. TALMAN, Acting Librarian

The subjoined titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers or other communications bearing on meteorology or cognate branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled; it shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau. Unsigned articles are indicated by a

Bulletin of the American Geographical Society. New York. Vol. 37.

Ward, R. DeC. The conventions of Weather Bureau officials.

[Note.] Pp. 555-556.